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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,758	12/23/2005	Joachim Antonissen	09997.0124USWO	6616
23552	7590	04/17/2008	EXAMINER	
MERCHANT & GOULD PC			CHEN, CHRISTINE	
P.O. BOX 2903				
MINNEAPOLIS, MN 55402-0903			ART UNIT	PAPER NUMBER
			1793	
			MAIL DATE	DELIVERY MODE
			04/17/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/539,758	ANTONISSEN ET AL.
	<b>Examiner</b>	<b>Art Unit</b>
	CHRISTINE CHEN	1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 16 January 2008.

2a) This action is **FINAL**.                            2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-19 is/are pending in the application.

4a) Of the above claim(s) 9-19 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-8 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 6/20/2005

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_ .

5) Notice of Informal Patent Application

6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Status of Claims***

1. Claims 1-19 are pending, wherein claims 9-19 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group. Election was made **without** traverse in the reply filed on January 16, 2008. Claims 1-8 are presented for examination.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itami (10-280087) or Akisue (JP 11-315328) or Yokoi (WO 01/81640 hereinafter used with English equivalent US 6589369) or Yoshinaga (WO 01/94655 hereinafter used with English equivalent US 6632296).

Itami, Akisue, Yokoi, and Yoshinaga disclose steel compositions comprising the essential elements of C, Mn, Al, Si, and P. A comparison among claims 1, 7 and the prior art is shown in the table below (Itami: see English abstract, Akisue: see English abstract, Yokoi: see column 3 lines 24-33 and column 4 lines 15-25, and Yoshinaga: see column 2 lines 30-51).

	Claim 1	Claim 7	Itami	Akisue	Yokoi (mass)	Yoshinaga

	(mass %)	(mass %)	(mass %)	(mass %)	(%)	(mass %)
C	.13-.26	.13-.19	.05-.3	.05-2	.01-.3	.0001-.5
Mn	1-2.2	1.3-2.2	.05-4	.5-2.5	.05-3	.01-3
Al	.8-1.5	.8-1.4	.01-2	.01-2.5	.005-1	.01-2.5
Si	.2-.6	.25-.45	0-3	.3-2.5	.01-2	.001-2.5
P	.04-.1	.06-.1	0-.1	0-.15	0-.1	.001-.2
S	0-.012	0-.012	0-.1	0	0-.01	0-.05
N	0-.02	0-.015	0-.01	0	0	0-.01
Ti	0-.1	0-.02	0	0-.05	0 or optionally .05-.5	0
Nb	0-.1	0-.01	0	0-.05	0 or optionally .01-.5	0
V	0-.1	0-.01	0	0	0 or optionally.02- .2	0
B	0-.001	0-.0005	0	0-.005	0	0
Fe	balance	balance	balance	balance	balance	balance

With regards to the limitation of carbon content as recited in claims 2-6 and the limitation of aluminum content as recited in claim 8, the steel compositions taught by

Itami, Akisue, Yokoi, and Yoshinaga overlap the ranges specified as seen in the table above.

It has been well settled in many court decisions that when a claimed range of an element in a composition is either inside, overlapped or close to the range of the same element in a prior art composition, a *prima facie* case of obviousness is established since it would have been obvious to one having ordinary skill in the art to construct a composition comprising said element having a concentration selected within the disclosed range.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTINE CHEN whose telephone number is (571)270-3590. The examiner can normally be reached on Monday-Friday 8:30am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/  
Supervisory Patent Examiner, Art  
Unit 1793

CC